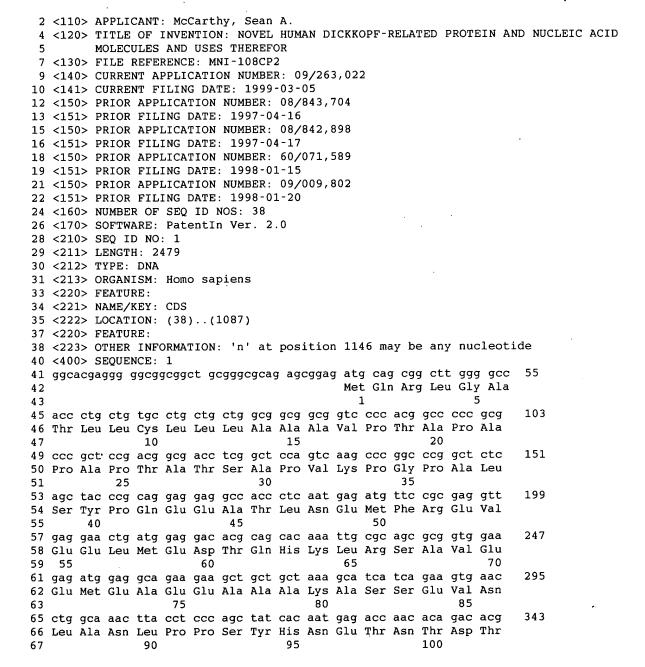
PO O	CRF Eins Corrected by the STIC System Franch CRF Processing Date: 5/9/200 Number: 09/263,022 ENTERED Edited by:
Servai l	
	Changed a file from non-ASCII to ASCII
	Changed the margins in cases where the sequence text was "wrapped" down to the next line.
	Edited a format error in the Current Application Data section, specifically:
	Edited the Current Application Data section with the actual current number. The number inputted by the applicant was the prior application data; or other
	Added the mandatory heading and subheadings for "Current Application Data".
	Edited the "Number of Sequences" field. The applicant spelled out a number instead of using an integer.
\Box_{f}	Changed the spelling of a mandatory field (the headings or subheadings), specifically:
	Corrected the SEQ ID NO when obviously incorrect. The sequence numbers that were edited were:
	Inserted or corrected a nucleic number at the end of a nucleic line. SEQ ID NO's edited:
	Corrected subheading placement. All responses must be on the same line as each subheading. If the applicant placed a response below the subheading, this was moved to its appropriate place.
	Inserted colons after headings/subheadings. Headings edited included:
	Deleted extra, invalid, headings used by an applicant, specifically:
	Deleted: ☐ non-ASCII "garbage" at the beginning/end of files; ☐ secretary initials/filename at end of file ☐ page numbers throughout text; ☐ other invalid text, such as
	Inserted mandatory headings, specifically:
	Corrected an obvious error in the response, specifically:
	Edited identifiers where upper case is used but lower case is required, or vice versa.
	Corrected an error in the Number of Sequences field, specifically:
	A "Hard Page Break" code was inserted by the applicant. All occurrences had to be deleted.
	Deleted <i>ending</i> stop codon in amino acid sequences and adjusted the *(A)Length:* field accordingly (error due to a Patentin bug). Sequences corrected:
	Other:
•	

*Examiner: The above corrections must be communicated to the applicant in the first Office Action. DO NOT send a copy of this form.

RAW SEQUENCE LISTING DATE: 05/07/2001

PATENT APPLICATION: US/09/263,022 TIME: 13:18:48

Input Set : A:\Pto.amc



DATE: 05/07/2001 RAW SEQUENCE LISTING PATENT APPLICATION: US/09/263,022 TIME: 13:18:48

Input Set : A:\Pto.amc
Output Set: N:\CRF3\05072001\I263022.raw

						•			,	•		•						
														att				391
		Asn	Val		Asn	Asn	Thr	Ile		Val	His	Arg	Glu	Ile	His	Lys	Ile .	
	71		•	105					110					115			***	
•					_				_	-				aca	-			439
		Thr		Asn	GIn	Thr	GTĀ			Val	Pne	Ser		Thr	vaı	TTE	Thr	
	75 _.		120			~	~~~	125	•	. ~ ~	222		130	+~~	-+ <i>-</i>	a + a	~~ ~	487
														tgc Cys				40/
		135	Val	GIY	ASP	GIU	140	GIY	AIG	AIG	561	145	GIU	Cys	TIE	116	150	
			aac	tat	aaa	aca		ata	tac	tac	cad		acc	agc	ttc	car		535
														Ser				333
	83	GIU	rsp	Cys	OLY	155	DCI	IIC C	-1-	Cys	160	1	mu	001	1 110	165	-1-	
		acc	tac	саσ	сса		caa	aac	саσ	ασσ		ctc	tac	acc	caa		aσt.	583
														Thr				
	87		-1-	-	170	- 4	3			175					180	•		
	89	gag	tgc	tgt	gga	gac	cag	ctg	tgt	gtc	tgg	ggt	cac	tgc	acc	aaa	atg	631
	90	Glu	Cys	Cys	Gly	Asp	Gln	Leu	Cys	Val	Trp	Gly	His	Cys	Thr	Lys	Met	
	91			185					190					195				
														cag				679
	94	Ala	Thr	Arg	Gly	Ser	Asn	Gly	Thr	Ile	Cys	Asp	Asn	Gln	Arg	Asp	Cys	
	95		200				,	205					210					
														ctg				727
			Pro	Gly	Leu	Cys	_	Ala	Phe	Gln	Arg		Leu	Leu	Phe	Pro		
		215					220					225					230	
																	agc	775
			Thr	Pro) Let			GIU	GTA	GIU			HIS	s Asp	Pro		Ser	
	103					235					240					245		022
																	ttg Leu	823
	100		rea	гъес	250		ıııe	1111	111	255		GIU	PIC	ASP	260		Leu	
			cga	tac			acc	agt	aac			tac	· cac	, ,,,,,,,			cac	871
		_	_	_		_	-	_				_	_			_	His	0,1
	111	_	*** 9	265		, 0,0			270			. 0,2	01.	275				
			cta			. ata	tac	aaq	-		ttc	ata	gaa	aqc	cat	gac	caa	919
		-	-				-	_	_					-	_	_	Gln	
	115		280		•		-	285			•		290		_	-		
	117	gat	ggg	gag	ato	ctg	ctg	ccc	aga	gag	gto	ccc	gat	gag	tat	gaa	gtt	967
	118	Asp	Gly	Glu	ı Ile	Leu	Leu	Pro	Arg	Glu	Val	Pro	Asp	Glu	Tyr	Glu	ı Val	
	119	295					300					305	i				310	
	121	ggc	ago	ttc	atg	gag	gag	gtg	cgc	cag	gag	ctg	gag	gac	ctg	gag	agg	1015
		Gly	Ser	Phe	Met		Glu	Val	Arg	Gln			Glu	Asp	Leu		Arg	
	123					315					320					325		
																	gct	1063
		Ser	Leu	Thr			Met	Ala	Leu			Pro	Ala	. Ата			Ala	
	127		~+ ~	- - -	330		~	~~~		335		~~~		~~+~	340			1117
											alct	yga	ccag	yetg	Ly g	ytag	atgtg	1117
	130 131	HIG	Leu	вец 345		Arg	GIU	GIU	350									
		Caa	tage			aat+	ta t	ttcc			tata	ct++	aan	cata	aac	taso	cagget	1177
		Jud	94		~5~~					., <u>-</u> y	-5 -3			~ > ~ 9	J J C	-546		

RAW SEQUENCE LISTING DATE: 05/07/2001 PATENT APPLICATION: US/09/263,022 TIME: 13:18:48

Input Set : A:\Pto.amc

135	tcttcctaca	tcttc	ttccc	agtaa	gtttc	ccc	ctct	ggct	tgad	cagc	atg	aggt	gttgtg	1237	
	catttgttca														
139	aggcagggtt	aaact	gcagg	agcag	tttgc	cac	cccd	tgtc	caga	atta	ttg	gctg	ctttgc	1357	
141	ctctaccagt	tggca	gacag	ccgtt	tgttc	: tac	catg	gctt	tgat	taat	tgt	ttgag	ggggag	1417	
143	gagatggaaa	caatg	tggag	tctcc	ctctg	, att	tggti	tttg	ggga	aaat	gtg	gagaa	agagtg	1477	
145	ccctgctttg	caaac	atcaa	cctgg	caaaa	ate	gcaa	caaa	tgaa	attt	tcc	acgca	agttct	1537	
147	ttccatgggc	atagg	taagc	tgtgc	cttca	gct	tgtt	gcag	atga	aaat	gtt	ctgt1	caccc	1597	
149	tgcattacat	gtgtt	tattc	atcca	gcagt	: gt1	tgct	cagc	tcct	tacc	tct	gtgc	cagggc	1657	
151	agcattttca	tatcc	aagat	caatt	ccctc	tct	tcago	caca	gcct	ggg	gag	ggggt	cattg	1717	
153	ttctcctcgt	ccatc	aggga	tttca	gaggo	tca	agaga	actg	caaç	gctg	ctt	gccca	agtca	1777	
155	cacagctagt	gaaga	ccaga	gcagt	ttcat	ct	gtt	gtga	ctct	taag	ctc	agtgo	ctctct	1837	
157	ccactacccc	acacc	agcct	tggtg	ccacc	aaa	agt	gctc	CCC	aaaa	gga	aggag	gaatgg	1897	
159	gatttttctt	ttgag	gcatg	cacat	ctgga	ati	caag	gtca	aact	aat	tct.	cacat	ccctc	1957	
161	taaaagtaaa	ctact	gttag	gaaca	gcagt	gt1	ctca	acag	tgt	gggg	cag	ccgt	cttct	2017	
163	aatgaagaca	atgat	attga	cactg	tecet	ctt	tgg	cagt	tgca	atta	gta	acttt	gaaag	2077	
165	gtatatgact	gagcg	tagca	tacag	gttaa	cct	gcag	gaaa	cagt	cact	tag	gtaat	tgtag	2137	
	ggcgaggatt														
169	ccacgtggag	aaaat	caaac	cgagc	agggc	tgt:	gtga	aaac	atg	gttg	taa	tatgo	gactg	2257	
171	cgaacactga	actct	acgcc	actcc	acaaa	ı tga	atgti	tttc	aggt	igtca	atg	gact	gttgcc	2317	
173	accatgtatt	catcc	agagt	tctta	aagtt	: taa	agti	tgca	cate	gatte	gta	taago	catgct	2377	
175	ttctttgagt	tttaa	attat	gtata	aacat	aaq	gttg	catt	taga	aaat	caa	gcata	aatca.	2437	
														2479	
180	7 cttcaactgc taaaaaaaaa aaaaaaaaaa aaaaaaaaaa														
181	81 <211> LENGTH: 350														
182	22 <212> TYPE: PRT														
183	<213> ORGA	NISM:	Homo s	apien	s										
185	<400> SEQU	ENCE:	2												
186	Met Gln Ar	g Leu	Gly Al	a Thr	Leu	Leu	Cys	Leu	Leu	Leu	Ala	Ala	Ala		
187	1	•	5				10					15			
189	Val Pro Th	r Ala	Pro Al	a Pro	Ala	Pro	Thr	Ala	Thr	Ser	Ala	Pro	Val		
190		20				25					30				
192	Lys Pro Gl	y Pro	Ala Le	u Ser	Tyr	Pro	Gln	Glu	Glu	Ala	Thr	Leu	Asn		
193	3	5			40										
195	Glu Met Ph	. 1	C1 17-							45					
196		e Arg	GIU VA	I Glu	Glu	Leu	Met	Glu	Asp						
	50	_		55					60	Thr	Gln	His	Lys 		
198	50 Leu Arg Se	_		55					60	Thr	Gln	His	Lys 		
198 199		_	Val Gl	55					60	Thr	Gln	His	Lys 		
199	Leu Arg Se	r Ala '	Val Gl 7	55 u Glu 0	Met	Glu	Ala	Glu 75	60 Glu	Thr	Gln Ala	His Ala	Lys Lys 80		
199 201 202	Leu Arg Se 65 Ala Ser Se	r Ala '	Val Gl 7 Val As 85	55 u Glu 0 n Leu	Met Ala	Glu Asn	Ala Leu 90	Glu 75 Pro	60 Glu Pro	Thr Ala Ser	Gln Ala Tyr	His Ala His 95	Lys Lys 80 Asn		
199 201 202	Leu Arg Se 65	r Ala '	Val Gl 7 Val As 85	55 u Glu 0 n Leu	Met Ala	Glu Asn	Ala Leu 90	Glu 75 Pro	60 Glu Pro	Thr Ala Ser	Gln Ala Tyr	His Ala His 95	Lys Lys 80 Asn		
199 201 202 204 205	Leu Arg Se 65 Ala Ser Se Glu Thr As	r Ala r r Glu r n Thr 7	Val Gl 7 Val As 85 Asp Th	55 u Glu 0 n Leu r Asn	Met Ala Val	Glu Asn Gly 105	Ala Leu 90 Asn	Glu 75 Pro Asn	60 Glu Pro Thr	Thr Ala Ser Ile	Gln Ala Tyr His 110	His Ala His 95 Val	Lys Lys 80 Asn		
199 201 202 204 205	Leu Arg Se 65 Ala Ser Se	r Ala r r Glu r n Thr 7	Val Gl 7 Val As 85 Asp Th	55 u Glu 0 n Leu r Asn	Met Ala Val	Glu Asn Gly 105	Ala Leu 90 Asn	Glu 75 Pro Asn	60 Glu Pro Thr	Thr Ala Ser Ile	Gln Ala Tyr His 110	His Ala His 95 Val	Lys Lys 80 Asn		
199 201 202 204 205	Leu Arg Se 65 Ala Ser Se Glu Thr As	r Ala r Glu r Glu r 100 e His i	Val Gl 7 Val As 85 Asp Th	55 u Glu 0 n Leu r Asn	Met Ala Val	Glu Asn Gly 105	Ala Leu 90 Asn	Glu 75 Pro Asn	60 Glu Pro Thr	Thr Ala Ser Ile	Gln Ala Tyr His 110	His Ala His 95 Val	Lys Lys 80 Asn		
199 201 202 204 205 207 208	Leu Arg Se 65 Ala Ser Se Glu Thr As Arg Glu Il	r Ala r r Glu r n Thr 7 100 e His 1	Val Gl 7 Val As 85 Asp Th Lys Il	55 u Glu 0 n Leu r Asn e Thr	Met Ala Val Asn 120	Glu Asn Gly 105 Asn	Ala Leu 90 Asn Gln	Glu 75 Pro Asn Thr	60 Glu Pro Thr	Thr Ala Ser Ile Gln 125	Gln Ala Tyr His 110 Met	His Ala His 95 Val	Lys 80 Asn His		
199 201 202 204 205 207 208 210 211	Leu Arg Se 65 Ala Ser Se Glu Thr As Arg Glu Il. 11 Ser Glu Th 130	r Ala r r Glu r n Thr 7 100 e His r r Val	Val Gl 7 Val As 85 Asp Th Lys Il	55 u Glu 0 n Leu r Asn e Thr r Ser 135	Met Ala Val Asn 120 Val	Glu Asn Gly 105 Asn Gly	Ala Leu 90 Asn Gln Asp	Glu 75 Pro Asn Thr	60 Glu Pro Thr Gly Glu 140	Thr Ala Ser Ile Gln 125 Gly	Gln Ala Tyr His 110 Met	His Ala His 95 Val Val Arg	Lys 80 Asn His Phe		
199 201 202 204 205 207 208 210 211	Leu Arg Se 65 Ala Ser Se Glu Thr As Arg Glu II 11 Ser Glu Th	r Ala r r Glu r n Thr 7 100 e His r r Val	Val Gl 7 Val As 85 Asp Th Lys Il	55 u Glu 0 n Leu r Asn e Thr r Ser 135	Met Ala Val Asn 120 Val	Glu Asn Gly 105 Asn Gly	Ala Leu 90 Asn Gln Asp	Glu 75 Pro Asn Thr Glu Pro	60 Glu Pro Thr Gly Glu 140	Thr Ala Ser Ile Gln 125 Gly	Gln Ala Tyr His 110 Met	His Ala His 95 Val Val Arg	Lys 80 Asn His Phe Ser		
199 201 202 204 205 207 208 210 211 213 214	Leu Arg Se 65 Ala Ser Se Glu Thr As Arg Glu Il. 11 Ser Glu Th. 130 His Glu Cy 145	r Ala Y r Glu Y n Thr A 100 e His B r Val Y s Ile S	Val Gl 7 Val As 85 Asp Th Lys Il Ile Th Ile As	55 u Glu 0 n Leu r Asn e Thr r Ser 135 p Glu 0	Met Ala Val Asn 120 Val Asp	Glu Asn Gly 105 Asn Gly Cys	Ala Leu 90 Asn Gln Asp Gly	Glu 75 Pro Asn Thr Glu Pro 155	60 Glu Pro Thr Gly Glu 140 Ser	Thr Ala Ser Ile Gln 125 Gly Met	Gln Ala Tyr His 110 Met Arg	His Ala His 95 Val Val Arg Cys	Lys 80 Asn His Phe Ser Gln 160		
199 201 202 204 205 207 208 210 211 213 214 216	Leu Arg Se 65 Ala Ser Se Glu Thr As Arg Glu Il. 11 Ser Glu Th 130 His Glu Cy	r Ala Y r Glu Y n Thr A 100 e His B r Val E s Ile E	Val Gl 7 Val As 85 Asp Th Lys Il Ile Th Ile As 15 Gln Ty	55 u Glu 0 n Leu r Asn e Thr r Ser 135 p Glu 0	Met Ala Val Asn 120 Val Asp	Glu Asn Gly 105 Asn Gly Cys	Ala Leu 90 Asn Gln Asp Gly Pro	Glu 75 Pro Asn Thr Glu Pro 155	60 Glu Pro Thr Gly Glu 140 Ser	Thr Ala Ser Ile Gln 125 Gly Met	Gln Ala Tyr His 110 Met Arg	His Ala His 95 Val Val Arg Cys Arg	Lys 80 Asn His Phe Ser Gln 160		
199 201 202 204 205 207 208 210 211 213 214	Leu Arg Se 65 Ala Ser Se Glu Thr As Arg Glu Il. 11 Ser Glu Th. 130 His Glu Cy 145	r Ala Y r Glu Y n Thr A 100 e His B r Val E s Ile E	Val Gl 7 Val As 85 Asp Th Lys Il Ile Th Ile As	55 u Glu 0 n Leu r Asn e Thr r Ser 135 p Glu 0	Met Ala Val Asn 120 Val Asp	Glu Asn Gly 105 Asn Gly Cys	Ala Leu 90 Asn Gln Asp Gly	Glu 75 Pro Asn Thr Glu Pro 155	60 Glu Pro Thr Gly Glu 140 Ser	Thr Ala Ser Ile Gln 125 Gly Met	Gln Ala Tyr His 110 Met Arg	His Ala His 95 Val Val Arg Cys	Lys 80 Asn His Phe Ser Gln 160		

DATE: 05/07/2001 RAW SEQUENCE LISTING PATENT APPLICATION: US/09/263,022 TIME: 13:18:48

Input Set : A:\Pto.amc
Output Set: N:\CRF3\05072001\I263022.raw

219 220	Leu	Cys	Thr	Arg 180	Asp	Ser	Glu	Cys	Cys 185	Gly	Asp	Gln	Leu	Cys 190	Val	Trp	
222	Gly	His			Lys	Met	Ala			Gly	Ser	Asn			Ile	Cys	
223	λen	λen	195	Δra	Δen	Cys	Gln	200 Pro	Glv	T.e.u	Cvs	Cvs	205 Ala	Phe	Gln	Ara	
226		210					215					220					
		Leu	Leu	Phe	Pro	Val	Cys	Thr	Pro	Leu		Val	Glu	Gly	Glu		
	225	***	3	D	31.	230	7	T	T	7 ~~	235	т10	mbs	man	C1.,	240	
232			•		245	Ser				250					255		
	Glu	Pro	Asp		Ala	Leu	Asp	Arg		Pro	Cys	Ala	Ser		Leu	Leu	
235	_		_	260	_	•	_	_	265			~ -	+	270	m)	DI	
	Cys	Gln		His	Ser	His	Ser		Val	Tyr	vaı	Cys		Pro	Thr	Pne	
238	17.0 1	C1	275	N	7 ~~	C1 n	N a n	280	C1.,	т10	T 011	Tou	285 Bro	λκα	Clu	Wa l	
240	vaı	290	ser	Arg	ASP	Gln	295	GIY	GIU	ire	Leu	300	PIO	Arg	GIU	Val	
	Pro		Clu	Фил	Clu	Val		Sor	Dho	Mot	Glu		Va 1	Δrσ	Gln	Glu	
243		rsp	GIU	ı yı	GIU	310	GLY	261	riic	IIC C	315	Olu	V 44 1	m y	0111	320	
		Glu	Asn	T.e.11	Glu	Arg	Ser	Len	Thr	Glu		Met	Ala	Leu	Ara		
247	ьси	OLU	пор	пси	325	**** 9	001	Deu		330	O_u				335	014	
	Pro	Ala	Ala	Ala		Ala	Ala	Leu	Leu		Ara	Glu	Glu				
250				340					345	1	,			350			
	<210)> SI	EO II		: 3												
		l> LE	_												•		
255	<212	2> TY	PE:	DNA													
256	<213	3> OF	RGAN	ISM:	Homo	sap	piens	3									
258	<220)> FE	EATUI	RE:													
)> FE L> NA			CDS												
259	<221	L> NA	AME/E	KEY:		(10)50)										
259 260 262	<221 <222 <400	L> NA 2> LO 0> SE	AME/E OCATI EQUE	KEY: ION: NCE:	(1) 3	•	-										
259 260 262 263	<221 <222 <400 atg	L> NA 2> LO 0> SE cag	AME/E OCATI EQUEI cgg	CEY: CON: NCE: ctt	(1) 3 ggg	gcc	acc	ctg	ctg	tgc	ctg	ctg	ctg	gcg	gcg	gcg	48
259 260 262 263	<221 <222 <400 atg	L> NA 2> LO 0> SE cag	AME/E OCATI EQUEI cgg	CEY: CON: NCE: ctt	(1) 3 ggg	•	acc	ctg Leu	ctg Leu	Cys	ctg Leu	ctg Leu	ctg Leu	gcg Ala	Ala	gcg Ala	48
259 260 262 263 264 265	<221 <222 <400 atg Met	L> NA 2> LO 0> SE cag Gln	AME/I DCATI EQUEI Cgg Arg	(EY: ION: ICE: ctt Leu	(1) 3 ggg Gly 5	gcc Ala	acc Thr	Leu	Leu	Cys 10	Leu	Leu	Leu	Ala	Ala 15	Ala	
259 260 262 263 264 265 267	<221 <222 <400 atg Met 1 gtc	L> NA 2> LO 0> SE cag Gln ccc	AME/F DCATI EQUEN Cgg Arg acg	(EY: ION: NCE: ctt Leu gcc	(1) 3 ggg Gly 5 ccc	gcc Ala gcg	acc Thr	Leu gct	Leu	Cys 10 acg	Leu gcg	Leu acc	Leu tcg	Ala gct	Ala 15 cca	Ala gtc	48
259 260 262 263 264 265 267	<221 <222 <400 atg Met 1 gtc	L> NA 2> LO 0> SE cag Gln ccc	AME/F DCATI EQUEN Cgg Arg acg	(EY: ION: NCE: ctt Leu gcc Ala	(1) 3 ggg Gly 5 ccc	gcc Ala	acc Thr	Leu gct	Leu ccg Pro	Cys 10 acg	Leu gcg	Leu acc	Leu tcg	Ala gct Ala	Ala 15 cca	Ala gtc	
259 260 262 263 264 265 267 268 269	<221 <222 <400 atg Met 1 gtc Val	l> NA 2> LO)> SI cag Gln ccc Pro	AME/F DCATI EQUED Cgg Arg acg Thr	(EY: ION: NCE: ctt Leu gcc Ala 20	(1) 3 ggg Gly 5 ccc Pro	gcc Ala gcg Ala	acc Thr ccc Pro	Leu gct Ala	Leu ccg Pro 25	Cys 10 acg Thr	Leu gcg Ala	Leu acc Thr	Leu tcg Ser	Ala gct Ala 30	Ala 15 cca Pro	Ala gtc Val	96
259 260 262 263 264 265 267 268 269 271	<221 <222 <400 atg Met 1 gtc Val	l> NA 2> LO 0> SI cag Gln ccc Pro	AME/F DCATI EQUED Cgg Arg acg Thr	(EY: ION: NCE: ctt Leu gcc Ala 20 ccg	(1) 3 ggg Gly 5 ccc Pro	gcc Ala gcg Ala	acc Thr ccc Pro	Leu gct Ala tac	ccg Pro 25 ccg	Cys 10 acg Thr	Leu gcg Ala gag	Leu acc Thr	tcg Ser gcc	Ala gct Ala 30 acc	Ala 15 cca Pro	Ala gtc Val	
259 260 262 263 264 265 267 268 269 271 272	<221 <222 <400 atg Met 1 gtc Val	l> NA 2> LO 0> SI cag Gln ccc Pro	AME/R DCATI EQUEN Cgg Arg acg Thr	(EY: ION: NCE: ctt Leu gcc Ala 20 ccg	(1) 3 ggg Gly 5 ccc Pro	gcc Ala gcg Ala	acc Thr ccc Pro	Leu gct Ala tac Tyr	ccg Pro 25 ccg	Cys 10 acg Thr	Leu gcg Ala gag	Leu acc Thr	tcg Ser gcc Ala	Ala gct Ala 30 acc	Ala 15 cca Pro	Ala gtc Val	96
259 260 262 263 264 265 267 268 269 271 272 273	<221 <222 <400 atg Met 1 gtc Val aag Lys	l> NA 2> LC 0> SI cag Gln ccc Pro	AME/R DCATI EQUEN Cgg Arg acg Thr ggc Gly 35	(EY: ION: NCE: ctt Leu gcc Ala 20 ccg Pro	(1) 3 ggg Gly 5 ccc Pro	gcc Ala gcg Ala ctc Leu	acc Thr ccc Pro agc Ser	gct Ala tac Tyr 40	ccg Pro 25 ccg Pro	Cys 10 acg Thr cag Gln	Leu gcg Ala gag Glu	Leu acc Thr gag Glu	tcg Ser gcc Ala 45	gct Ala 30 acc Thr	Ala 15 cca Pro ctc Leu	gtc Val aat Asn	96 144
259 260 262 263 264 265 267 268 269 271 272 273 275	<221 <222 <400 atg Met 1 gtc Val aag Lys	L> NA 2> LC D> SE cag Gln ccc Pro ccc Pro	AME/R DCATI EQUEN Cgg Arg acg Thr ggc Gly 35 ttc	KEY: ION: NCE: ctt Leu gcc Ala 20 ccg Pro	(1) 3 ggg Gly 5 ccc Pro gct Ala	gcc Ala gcg Ala ctc Leu	acc Thr ccc Pro agc Ser	gct Ala tac Tyr 40 gaa	ccg Pro 25 ccg Pro	Cys 10 acg Thr cag Gln	gcg Ala gag Glu	acc Thr gag Glu	tcg Ser gcc Ala 45 acg	Ala gct Ala 30 acc Thr	Ala 15 cca Pro ctc Leu	Ala gtc Val aat Asn	96
259 260 262 263 264 265 267 268 269 271 272 273 275 276	<221 <222 <400 atg Met 1 gtc Val aag Lys	l> NA 2> LO 2> LO 0> SE cag Gln ccc Pro ccc Pro atg Met	AME/R DCATI EQUEN Cgg Arg acg Thr ggc Gly 35 ttc	KEY: ION: NCE: ctt Leu gcc Ala 20 ccg Pro	(1) 3 ggg Gly 5 ccc Pro gct Ala	gcc Ala gcg Ala ctc Leu	acc Thr ccc Pro agc Ser gag Glu	gct Ala tac Tyr 40 gaa	ccg Pro 25 ccg Pro	Cys 10 acg Thr cag Gln	gcg Ala gag Glu	acc Thr gag Glu gac Asp	tcg Ser gcc Ala 45 acg	Ala gct Ala 30 acc Thr	Ala 15 cca Pro ctc Leu	Ala gtc Val aat Asn	96 144
259 260 262 263 264 265 267 268 269 271 272 273 275 276 277	<221 <222 <400 atg Met 1 gtc Val aag Lys gag Glu	L> NA 2> LO 2> LO 0> SE cag Gln ccc Pro ccc Pro atg Met 50	AME/R DCATI EQUEN CGG Arg acg Thr ggc Gly 35 ttc Phe	CEY: ION: ICE: ctt Leu gcc Ala 20 ccg Pro cgc Arg	(1) 3 ggg Gly 5 ccc Pro gct Ala gag Glu	gcc Ala gcg Ala ctc Leu gtt Val	acc Thr ccc Pro agc Ser gag Glu 55	Leu gct Ala tac Tyr 40 gaa Glu	ccg Pro 25 ccg Pro ctg Leu	Cys 10 acg Thr cag Gln atg Met	Leu gcg Ala gag Glu gag Glu	Leu acc Thr gag Glu gac Asp 60	tcg Ser gcc Ala 45 acg Thr	Ala gct Ala 30 acc Thr cag Gln	Ala 15 cca Pro ctc Leu cac	gtc Val aat Asn aaa Lys	96 144 192
259 260 262 263 264 265 267 268 271 272 273 275 276 277	<221 <222 <400 atg Met 1 gtc Val aag Lys gag Glu ttg	L> NZ 2> LC D> SE cag Gln ccc Pro ccc Pro atg Met 50 cgc	AME/R DCATI DCATI CGG Arg acg Thr ggc Gly 35 ttc Phe	CEY: ION: ICE: Ctt Leu gcc Ala 20 ccg Pro cgc Arg	(1) 3 ggg Gly 5 ccc Pro gct Ala gag Glu gtg	gcc Ala gcg Ala ctc Leu gtt Val	acc Thr ccc Pro agc Ser gag Glu 55 gag	Leu gct Ala tac Tyr 40 gaa Glu atg	ccg Pro 25 ccg Pro ctg Leu	Cys 10 acg Thr cag Gln atg Met	Leu gcg Ala gag Glu gag Glu	Leu acc Thr gag Glu gac Asp 60 gaa	tcg Ser gcc Ala 45 acg Thr	Ala gct Ala 30 acc Thr cag Gln	Ala 15 cca Pro ctc Leu cac His	gtc Val aat Asn aaa Lys	96 144
259 260 262 263 264 265 267 268 271 272 273 275 276 277 279 280	<221 <222 <400 atg Met 1 gtc Val aag Lys gag Glu ttg Leu	L> NZ 2> LC 0> SE cag Gln ccc Pro ccc Pro atg Met 50 cgc	AME/R DCATI DCATI CGG Arg acg Thr ggc Gly 35 ttc Phe	CEY: ION: ICE: Ctt Leu gcc Ala 20 ccg Pro cgc Arg	(1) 3 ggg Gly 5 ccc Pro gct Ala gag Glu gtg	gcc Ala gcg Ala ctc Leu gtt Val gaa Glu	acc Thr ccc Pro agc Ser gag Glu 55 gag	Leu gct Ala tac Tyr 40 gaa Glu atg	ccg Pro 25 ccg Pro ctg Leu	Cys 10 acg Thr cag Gln atg Met	Leu gcg Ala gag Glu gag Glu gaa Glu	Leu acc Thr gag Glu gac Asp 60 gaa	tcg Ser gcc Ala 45 acg Thr	Ala gct Ala 30 acc Thr cag Gln	Ala 15 cca Pro ctc Leu cac His	gtc Val aat Asn aaa Lys aaa Lys	96 144 192
259 260 262 263 264 265 267 272 273 275 276 277 279 280 281	<221 <222 <400 atg Met 1 gtc Val aag Lys gag Glu ttg Leu 65	L> NA 2> LO 0> SE cag Gln ccc Pro ccc Pro atg Met 50 cgc Arg	AME/R DCATI EQUEN CGG Arg acg Thr GGly 35 ttc Phe agc Ser	CEY: ON: CCE: Ctt Leu gcc Ala 20 ccg Pro cgc Arg gcg Ala	(1) 3 ggg Gly 5 ccc Pro gct Ala gag Glu gtg Val	gcc Ala gcg Ala ctc Leu gtt Val gaa Glu 70	acc Thr ccc Pro agc Ser gag Glu 55 gag Glu	Leu gct Ala tac Tyr 40 gaa Glu atg Met	ccg Pro 25 ccg Pro ctg Leu gag Glu	Cys 10 acg Thr cag Gln atg Met	Leu gcg Ala gag Glu gag Glu gaa Glu 75	Leu acc Thr gag Glu gac Asp 60 gaa Glu	tcg Ser gcc Ala 45 acg Thr gct Ala	Ala gct Ala 30 acc Thr cag Gln gct Ala	Ala 15 cca Pro ctc Leu cac His gct Ala	gtc Val aat Asn aaa Lys aaa Lys	96 144 192 240
259 260 262 263 264 265 267 268 271 272 273 275 276 277 279 280 281 283	<221 <222 <400 atg Met 1 gtc Val aag Lys gag Glu ttg Leu 65 gca	L> NZ 2> LO 0> SE cag Gln ccc Pro ccc Pro atg Met 50 cgc Arg	AME/R DCATI EQUEN Cgg Arg acg Thr ggc Gly 35 ttc Phe agc Ser tca	CEY: ON: CCE: Ctt Leu gcc Ala 20 ccg Pro cgc Arg gcg Ala gaa	(1) 3 ggg Gly 5 ccc Pro gct Ala gag Glu gtg Val	gcc Ala gcg Ala ctc Leu gtt Val gaa Glu 70 aac	acc Thr ccc Pro agc Ser gag Glu 55 gag Glu ctg	Leu gct Ala tac Tyr 40 gaa Glu atg Met gca	ccg Pro 25 ccg Pro ctg Leu gag Glu	Cys 10 acg Thr cag Gln atg Met gca Ala	Leu gcg Ala gag Glu gag Glu 75 cct	Leu acc Thr gag Glu gac Asp 60 gaa Glu ccc	tcg Ser gcc Ala 45 acg Thr gct Ala agc	Ala gct Ala 30 acc Thr cag Gln gct Ala tat	Ala 15 cca Pro ctc Leu cac His gct Ala cac	gtc Val aat Asn aaa Lys aaa Lys 80 aat	96 144 192
259 260 262 263 264 265 267 268 271 272 273 275 276 277 280 281 283 284	<221 <222 <400 atg Met 1 gtc Val aag Lys gag Glu ttg Leu 65 gca	L> NZ 2> LO 0> SE cag Gln ccc Pro ccc Pro atg Met 50 cgc Arg	AME/R DCATI EQUEN Cgg Arg acg Thr ggc Gly 35 ttc Phe agc Ser tca	CEY: ON: CCE: Ctt Leu gcc Ala 20 ccg Pro cgc Arg gcg Ala gaa	(1) 3 ggg Gly 5 ccc Pro gct Ala gag Glu gtg Val gtg Val	gcc Ala gcg Ala ctc Leu gtt Val gaa Glu 70	acc Thr ccc Pro agc Ser gag Glu 55 gag Glu ctg	Leu gct Ala tac Tyr 40 gaa Glu atg Met gca	ccg Pro 25 ccg Pro ctg Leu gag Glu	Cys 10 acg Thr cag Gln atg Met gca Ala tta Leu	Leu gcg Ala gag Glu gag Glu 75 cct	Leu acc Thr gag Glu gac Asp 60 gaa Glu ccc	tcg Ser gcc Ala 45 acg Thr gct Ala agc	Ala gct Ala 30 acc Thr cag Gln gct Ala tat	Ala 15 cca Pro ctc Leu cac His gct Ala cac	gtc Val aat Asn aaa Lys aaa Lys 80 aat	96 144 192 240
259 260 262 263 264 265 267 268 271 272 273 275 276 281 283 284 285	<221 <222 <400 atg Met 1 gtc Val aag Lys gag Glu ttg Leu 65 gca Ala	L> NA 2> LO 0> SE cag Gln ccc Pro ccc Pro atg Met 50 cgc Arg tca Ser	AME/R DCATI EQUEN Cgg Arg acg Thr ggc Gly 35 ttc Phe agc Ser tca Ser	CEY: ON: CCE: Ctt Leu gcc Ala 20 ccg Pro cgc Arg gcg Ala gaa Glu	(1) 3 ggg Gly 5 ccc Pro gct Ala gag Glu gtg Val gtg Val 85	gcc Ala gcg Ala ctc Leu gtt Val gaa Glu 70 aac Asn	acc Thr ccc Pro agc Ser gag Glu 55 gag Glu ctg Leu	Leu gct Ala tac Tyr 40 gaa Glu atg Met gca Ala	ccg Pro 25 ccg Pro ctg Leu gag Glu aac	Cys 10 acg Thr cag Gln atg Met gca Ala tta Leu 90	Leu gcg Ala gag Glu gaa Glu 75 cct Pro	Leu acc Thr gag Glu gac Asp 60 gaa Glu ccc Pro	tcg Ser gcc Ala 45 acg Thr gct Ala agc Ser	Ala gct Ala 30 acc Thr cag Gln gct Ala tat Tyr	Ala 15 cca Pro ctc Leu cac His gct Ala cac His 95	gtc Val aat Asn aaa Lys aaa Lys 80 aat Asn	96 144 192 240 288
259 260 262 263 264 265 267 268 271 272 273 275 276 281 283 284 285	<221 <222 <400 atg Met 1 gtc Val aag Lys gag Glu ttg Leu 65 gca Ala	L> NA 2> LO 0> SE cag Gln ccc Pro ccc Pro atg Met 50 cgc Arg tca Ser	AME/R DCATI EQUEN Cgg Arg acg Thr ggc Gly 35 ttc Phe agc Ser tca Ser	CEY: ON: CCE: Ctt Leu gcc Ala 20 ccg Pro cgc Arg gcg Ala gaa Glu	(1) 3 ggg Gly 5 ccc Pro gct Ala gag Glu gtg Val gtg Val 85	gcc Ala gcg Ala ctc Leu gtt Val gaa Glu 70 aac	acc Thr ccc Pro agc Ser gag Glu 55 gag Glu ctg Leu	Leu gct Ala tac Tyr 40 gaa Glu atg Met gca Ala	ccg Pro 25 ccg Pro ctg Leu gag Glu aac	Cys 10 acg Thr cag Gln atg Met gca Ala tta Leu 90	Leu gcg Ala gag Glu gaa Glu 75 cct Pro	Leu acc Thr gag Glu gac Asp 60 gaa Glu ccc Pro	tcg Ser gcc Ala 45 acg Thr gct Ala agc Ser	Ala gct Ala 30 acc Thr cag Gln gct Ala tat Tyr	Ala 15 cca Pro ctc Leu cac His gct Ala cac His 95	gtc Val aat Asn aaa Lys aaa Lys 80 aat Asn	96 144 192 240

RAW SEQUENCE LISTING DATE: 05/07/2001 PATENT APPLICATION: US/09/263,022 TIME: 13:18:49

Input Set : A:\Pto.amc

Output Set: N:\CRF3\05072001\I263022.raw

288 289	Glu	Thr	Asn	Thr 100	Asp	Thr	Asn	Val	Gly 105	Asn	Asn	Thr	Ile	His 110	Val	His	
291	cga	αаа	att	cac	aaσ	ata	acc	aac	aac	cag	act	σσα	caa	atq	atc	ttt	384
						Ile											
293	Arg	GIU	115	1113	цуз	110	1 111	120	non	01		019	125	1100	· u ·	1 110	
																	422
				_		aca				-	-	-				_	432
296	Ser	Glu	Thr	Val	Ile	Thr	Ser	Val	Gly	Asp	Glu	Glu	Gly	Arg	Arg	Ser	
297		130					135					140					
299	cac	gag	tgc	atc	atc	gac	gag	gac	tgt	ggg	ccc	agc	atg	tac	tgc	cag	480
300	His	Glu	Cvs	Ile	Ile	Asp	Glu	Asp	Cys	Gly	Pro	Ser	Met	Tyr	Cys	Gln	
	145		-			150		-	-	-	155			_	_	160	
		acc	age	ttc	cag	tac	acc	tac	саσ	cca	tac	caa	aac	caq	agg	ato	528
		_	_		_	Tyr		-	_		_			_		_	
	rne	AIG	Ser	FILE		TYL	1111	Cys	GIII		Cys	Arg	GIY	GIII	-	Mec	
305					165					170				4	175	A	F7.
						agt											576
308	Leu	Cys	Thr	Arg	Asp	Ser	Glu	Cys	Cys	Gly	Asp	Gln	Leu	Cys	Val	Trp	
309				180					185					190			
311	ggt	cac	tgc	acc	aaa	atg	gcc	acc	agg	ggc	agc	aat	ggg	acc	atc	tgt	624
312	Gly	His	Cys	Thr	Lys	Met	Ala	Thr	Arq	Gly	Ser	Asn	Gly	Thr	Ile	Cys	
313	-		195		-			200	_	-			205			-	
	gac	aac		адд	gac	tgc	cag		aaa	cta	tac	tat		ttc	cag	aσa	672
	_		-		_	Cys	_	_		_	_	_	_		_	-	0.2
	ьзр		GIII	пту	кор	Cys		110	GLY	цец	Cys	220	AIU	1 110	0111	nra	
317		210					215				-	-					700
		-	-			gtg	-			_							720
	-	Leu	Leu	Phe	Pro	Val	Cys	Thr	Pro	Leu	Pro	Val	Glu	Gly	Glu	Leu	
	225					230					235					240	
323	tgc	cat	gac	ccc	gcc	agc	cgg	ctt	ctg	gac	ctc	atc	acc	tgg	gag	cta	768
324	Cys	His	Asp	Pro	Ala	Ser	Arg	Leu	Leu	Asp	Leu	Ile	Thr	Trp	Glu	Leu	
325	-		-		245		_			250				_	255		
	gag	cct	gat	gga	acc	ttg	gac	cga	tac	cct	tat	acc	agt.	aac	ctc	ctc	816
						Leu											010
329	GIU	FIO	rsp	260	AIG	пец	пор	AI 9	265	110	Cys	AIU	Jei	270	Leu	шси	
								4									0.64
	_	-			_	cac	_				-						864
	Cys	GIn		His	Ser	His	Ser		Val	Tyr	Val	Cys	_	Pro	Thr	Phe	
333			275					280					285				•
						caa											912
336	Val	Gly	Ser	Arg	Asp	Gln	Asp	Gly	Glu	Ile	Leu	Leu	Pro	Arg	Glu	Val	
337		290					295					300					
339	ccc	gat	σασ	tat	σaa	gtt	aac	agc	ttc	atq	gag	gag	ata	cac	caq	gag	960
						Val											
341			0_4	-1-	014	310	011				315			5	0	320	
		~~~	~~~	a+ ~	~~~		200	ata	20+	~~~		a+~	~~~	a+ ~	200		1008
						agg											1000
	Leu	GLu				Arg						мет	АТА	Leu	_	GIU	
345										330					335		
						gct											1050
348	Pro	Ala	Ala	Ala	Ala	Ala	Ala	Leu	Leu	Gly	Arg	Glu	Glu	Ile			
349				340					345					350			
352	<210	)> SE	Q II	NO:	4												
		l> LE															
,					-												
2																	
•									•								

## Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

VERIFICATION SUMMARY DATE: 05/07/2001 PATENT APPLICATION: US/09/263,022 TIME: 13:18:50

Input Set : A:\Pto.amc

Output Set: N:\CRF3\05072001\I263022.raw

L:133 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 L:1820 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:23 L:1820 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:23 L:1820 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:23 L:1823 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:23 L:1823 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:23 L:1823 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:23 L:1826 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:23 L:1826 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:23 L:1826 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:23 L:1829 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:23  $L:1829\ M:258\ W:$  Mandatory Feature missing, <222> not found for SEQ ID#:23 L:1829 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:23 L:1853 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:24 L:1853 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:24 L:1853 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:24 L:1856 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:24 L:1856 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:24 L:1856 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:24 L:1859 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:24 L:1859 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:24 L:1859 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:24L:1862 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:24  $L:1862\ M:258\ W:$  Mandatory Feature missing, <222> not found for SEQ ID#:24 L:1862 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:24 L:1865 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:24  $L:1865\ M:258\ W:$  Mandatory Feature missing, <222> not found for SEQ ID#:24 L:1865 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:24 L:1868 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:24 L:1868 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:24 L:1868 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:24 L:1871 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:24 L:1871 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:24 L:1871 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:24  $\,$  $L:1874\ M:258\ W:$  Mandatory Feature missing, <221> not found for SEQ ID#:24 L:1874 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:24 L:1874 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:24 L:2118 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:29 L:2118 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:29 L:2118 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:29 L:2121 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:29 L:2121 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:29 L:2121 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:29 L:2124 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:29 L:2124 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:29  $L\!:\!2124$  M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:29 L:2127 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:29 L:2127 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:29

VERIFICATION SUMMARY

DATE: 05/07/2001

PATENT APPLICATION: US/09/263,022

TIME: 13:18:50

Input Set : A:\Pto.amc '

Output Set: N:\CRF3\05072001\I263022.raw

L:2127 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:29

L:2188 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:34 L:2188 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:34

L:2188 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:34

1647

RAW SEQUENCE LISTING DATE: 05/07/2001 PATENT APPLICATION: US/09/263,022 TIME: 13:01:40

Input Set : A:\Seqlist.txt

Output Set: N:\CRF3\05072001\I263022.raw

Does Not Comply
Corrected Diskette Needed

```
6 <110> APPLICANT: McCarthy, Sean A.
     8 <120> TITLE OF INVENTION: NOVEL HUMAN DICKKOPF-RELATED PROTEIN AND NUCLEIC ACID
             MOLECULES AND USES THEREFOR
    11 <130> FILE REFERENCE: MNI-108CP2
    13 <140> CURRENT APPLICATION NUMBER: 09/263,022
C--> 14 <141> CURRENT FILING DATE: 2000-02-26
    16 <150> PRIOR APPLICATION NUMBER: 08/843,704
    17 <151> PRIOR FILING DATE: 1997-04-16
    19 <150> PRIOR APPLICATION NUMBER: 08/842,898
    20 <151> PRIOR FILING DATE: 1997-04-17
    22 <150> PRIOR APPLICATION NUMBER: 60/071,589
    23 <151> PRIOR FILING DATE: 1998-01-15
    25 <150> PRIOR APPLICATION NUMBER: 09/009,802
    26 <151> PRIOR FILING DATE: 1998-01-20
    28 <160> NUMBER OF SEQ ID NOS: 38
    30 <170> SOFTWARE: PatentIn Ver. 2.0
```

## ERRORED SEQUENCES

1163 <210> SEQ ID NO: 16

```
1164 <211> LENGTH: 2380
     1165 <212> TYPE: DNA
     1166 <213> ORGANISM: Homo sapiens
     1168 <220> FEATURE:
     1169 <221> NAME/KEY: CDS
1170 <222> LOCATION: (109)..(1155)
E--> 1172 <400> SEQUENCE: (26) /6
1173 gtcgacccac gcgtccgctg tggcagccca gctaccggtc gtgaccagat ccagcttgca 60
     1175 gctcagcttt gttcattcga attgggcggc ggccagcgcg gaacaaac atg cag cgg 117
     1176
                                                                  Met Gln Arg
     1179 ctc ggg ggt att ttg ctg tgt aca ctg ctg gcg gcg gcc gcc act
     1180 Leu Gly Gly Ile Leu Leu Cys Thr Leu Leu Ala Ala Val Pro Thr
                                    10
     1183 get eet get eet tee eeg aeg gte aet tgg aet eeg geg gag eeg gge
                                                                                213
     1184 Ala Pro Ala Pro Ser Pro Thr Val Thr Trp Thr Pro Ala Glu Pro Gly
                                25
                                                     30
     1187 cca gct ctc aac tac cct cag gag gaa gct acg ctc aat gag atg ttt
                                                                                261
     1188 Pro Ala Leu Asn Tyr Pro Gln Glu Glu Ala Thr Leu Asn Glu Met Phe
                            40
                                                 45
     1191 cga gag gtg gag gag ctg atg gaa gac act cag cac aaa ctg cgc agt
                                                                                309
     1192 Arg Glu Val Glu Glu Leu Met Glu Asp Thr Gln His Lys Leu Arg Ser
                       55
                                             60
     1195 gcc gtg gag gag atg gag gcg gaa gaa gca gct gct aaa acg tcc tct
     1196 Ala Val Glu Glu Met Glu Ala Glu Glu Ala Ala Lys Thr Ser Ser
     1197
```

RAW SEQUENCE LISTING DATE: 05/07/2001 TIME: 13:01:40 PATENT APPLICATION: US/09/263,022

Input Set : A:\Seqlist.txt
Output Set: N:\CRF3\05072001\I263022.raw

1199 1200 1201				_	_	-										-	405
1203 1204 1205	Thr 100	Glu	Thr	Arg	Val	Gly 105	Asn	Asn	Thr	Val	His 110	Val	His	Gln	Glu	Val 115	453 .
1207 1208 1209	His	Lys	Ile	Thr	Asn 120	Asn	Gln	Ser	Gly	Gln 125	Val	Val	Phe	Ser	Glu 130	Thr	501
1211 1212 1213	-				-	-,	-	-	-		-		_		_	_	549
1215 1216 1217			-	-	-	_						_	_			-	597
1219 1220 1221		-			-	_		_		-	_	_	_		_		645
1223 1224 1225	Arg																693
1227 1228 1229																	741
1231 1232 1233		-	_	_			_	_	_	_			_		_	-	789
1235 1236 1237							_							_		-	837
1239 1240 1241			-	_	_	_	_					-	_			-	885
1243 1244 1245	Gly	-	_	-	-	-		_	_	_				_	-		933
1247 1248 1249		-		-	-			_	-	_		-				-	981
1251 1252 1253		_		-			-	_	_				-	_	-		1029
1255 1256 1257		-	-	_					-		_	_		_	_	-	1077
1259 1260 1261	_	-, -		_		_	_		_	-					-		1125
1263	gtg		tca	cta [.]	ggc	gga		gag	gag	att	tagg		iga c	ccag	ctga	ıg	1175

RAW SEQUENCE LISTING DATE: 05/07/2001 PATENT APPLICATION: US/09/263,022 TIME: 13:01:40

Input Set : A:\Seqlist.txt

```
1264 Val Glu Ser Leu Gly Gly Glu Glu Glu Ile
                             345
     1267 tcactggtag atgtgcaata gaaatggcta atttattttc ccaggagtgt ccccaagtgt 1235
     1269 ggaatggccg cagctccttc ccagtagctt ttcctctggc ttgacaaggt acagtgcagt 1295
     1271 acatttette cageegeeet gettetetga ettgggaaag acaggeatgg egggtaaggg 1355
     1273 cageggtgag tegteeteg etgttgetag aaaegetgte ttgttettea tggatggaag 1415
     1275 atttgtttga agggagagga tgggaagggg tgaagtctgc tcatgatgga tttgggggat 1475
     1277 acagggagga ggatgcctgc cttgcagacg tggacttggc aaaatgtaac ctttgctttt 1535
     1279 gtcttgcgcc gctcccatgg gctgaggcag tggctacaca agagctatgc tgctctgtgg 1595
     1281 cctccacat attcatccct gtgtttcagc tcctacctca ctgtcagcac agcccttcat 1655
     1283 agccacqccc cctcttgctc accacagcct aggaggggac cagaggggac ttctctcaga 1715
     1285 geoccatget etetetetea acceeatace ageetetgtg ceagegacag teetteeaaa 1775
     1287 tggaggagt gaaateettt ggtttaatta tttteteett caaggeaege etgeeactaa 1835
     1289 ggtcaggctg acttgcatgt ccctctaacg ttcgtagcag tgtggtggac actgtcttcc 1895
     1291 accgactget teaatacete tgaaageeag tgeteggagt geagttegtg taaattaatt 1955
     1293 tgcaggaagt atacttggct aattgtaggg ctaggattgt gaatgaaatt tgcaaagtcg 2015
     1295 cttagcaaca atggaaagcc tttctcagtc acaccgagaa gtcacaacca agccaggttg 2075
     1297 tgtagagtac agctgtgaca tacagacaga agaaggctgg gctggatgtc aggcctcaga 2135
     1299 tgacqgtttc aqqtqccagq aactattacc attctqtatc tatccagagt tattaaaatt 2195
     1301 gaaagttgca cacatttgta taagcatgcc tttctcctga gttttaaatt atatgtatac 2255
     1303 acaaacatgt ggccctcaaa gatcatgcac aaaccactac tetttgctaa ttettggact 2315
     1307 gccgc
                                                                          2380
    1907 <210> SEQ ID NO: 26
    1908 <211> LENGTH: 835
     1909 <212> TYPE: DNA
     1910 <213> ORGANISM: Mus musculus
     1912 <220> FEATURE:
     1913 <221> NAME/KEY: CDS
    1914 <222> LOCATION: (57)..(746)
E--> 1916 <400> SEQUENCE: (25) 76
     1917 gaatteggea egaggeagaa ggegegaatg aaggeaaage eteceaecea eetgea atg 59
    1918
    1919
                                                                          107
    1921 tgt cga ctg agg gtc ttg ctg ctg ctc ccc ttg gcc ttc gtg tcc
    1922 Cys Arg Leu Arg Val Leu Leu Leu Leu Pro Leu Ala Phe Val Ser
                                         10
    1925 tee tet get etc ecc atc eat gat gte gae tet eag eag aac acc tee
    1926 Ser Ser Ala Leu Pro Ile His Asp Val Asp Ser Gln Gln Asn Thr Ser
                                      25
                                                                          203
    1929 ggg ttc ctg ggc ctt cag agg ctt ctc caa agc ttt agt cga ctg ttc
    1930 Gly Phe Leu Gly Leu Gln Arg Leu Leu Gln Ser Phe Ser Arg Leu Phe
                                 40
                                                                          251
    1933 cta aaa aat gac ctg cta cga gac ctg gac aac ttc ttc tcc tcc ccc
    1934 Leu Lys Asn Asp Leu Leu Arg Asp Leu Asp Asn Phe Phe Ser Ser Pro
    1935 50
                              55
    1937 atg gac ttc cga gac ctt cct agg aac ttc cat cag gaa gag aac cag
                                                                          299
    1938 Met Asp Phe Arg Asp Leu Pro Arg Asn Phe His Gln Glu Glu Asn Gln
    1939
                                              75
```

DATE: 05/07/2001 RAW SEQUENCE LISTING PATENT APPLICATION: US/09/263,022 TIME: 13:01:41

Input Set : A:\Seqlist.txt
Output Set: N:\CRF3\05072001\I263022.raw

1941 1942 1943			_	_							_			_		_	347
1945 1946 1947	-			gac		-			gag				_	gag		-	395
1949 1950 1951		-			-		_			_	-		-		_	_	443
1953 1954 1955	Pro		_	_	_		, ,		_				_	_	-		491
1957 1958 1959																	539
1961 1962 1963							_		-	_	_	-			-		587
1965 1966 1967			-		-												635
1969 1970 1971			_	_		-	_	_		-		-					683
1973 1974 1975	His	-	_	_		_	aga	_									731
1977 1978 1979	cca				-		gtggg	gga d	ccaga	atgto		caco	cctac	c ccc	caaca		786
1981	tate	ggaaa	ata a	aggt		et ta	cato	ctaaa	a aaa	aaaa	aaa	aaaa	aaaa	a			835

VERIFICATION SUMMARY DATE: 05/07/2001 PATENT APPLICATION: US/09/263,022 TIME: 13:01:42

Input Set : A:\Seglist.txt

```
L:14 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:137 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1
L:1172 M:212 E: (34) Invalid or duplicate Sequence ID Number, SEQUENCE ID NOS:16 differs:26
L:1824\ M:258\ W: Mandatory Feature missing, <221> not found for SEQ ID#:23
L:1824 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:23
L\!:\!1824 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:23
L:1827\ M:258\ W: Mandatory Feature missing, <221> not found for SEQ ID#:23
L:1827 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:23
L:1827 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:23
L:1830 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:23
L:1830 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:23
L:1830 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:23
L:1833 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:23
L:1833 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:23
L:1833 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:23
L:1857 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:24
L:1857 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:24
L\!:\!1857 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:24
L:1860\ M:258\ W: Mandatory Feature missing, <221> not found for SEQ ID#:24
L:1860 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:24
L:1860 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:24
L:1863 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:24
L:1863 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:24
L:1863 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:24
L:1866 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:24
L:1866 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:24
L:1866 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:24
L:1869 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:24
L:1869 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:24
L\!:\!1869 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:24
L:1872 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:24
L:1872 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:24
L\!:\!1872 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:24
L:1875\ M:258\ W: Mandatory Feature missing, <221> not found for SEQ ID#:24
L:1875 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:24
L:1875 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:24
L:1878 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:24
L:1878\ M:258\ W: Mandatory Feature missing, <222> not found for SEQ ID#:24
L:1878 M:341 W: (46) "n".or "Xaa" used, for SEQ ID#:24
L:1916 M:212 E: (34) Invalid or duplicate Sequence ID Number, SEQUENCE ID NOS:26 differs:25
L:2122 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:29
L:2122 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:29
L\!:\!2122 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:29
L:2125 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:29
L:2125 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:29
L\!:\!2125~M\!:\!341~W\!: (46) "n" or "Xaa" used, for SEQ ID#:29
L:2128 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:29 L:2128 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:29
```

DATE: 05/07/2001 VERIFICATION SUMMARY PATENT APPLICATION: US/09/263,022 TIME: 13:01:42

Input Set : A:\Seqlist.txt

Output Set: N:\CRF3\05072001\I263022.raw

L:2128 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:29

 $L:2131\ M:258\ W:$  Mandatory Feature missing, <221> not found for SEQ ID#:29 L:2131 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:29

 $L:2131\ M:341\ W:$  (46) "n" or "Xaa" used, for SEQ ID#:29

L:2192 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:34 L:2192 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:34 L:2192 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:34